FIG 1

Power Switch

Power Semiconductor

1

6

5

Vbb

Input

Logic Element

OUT

GND

7

RL

Load

LED

GND

8

Series Resistor

PRIOR ART

FIG 2

Intelligent Power Semiconductor

Display Element

Power Switch

Logic Element

Input

Vbb

OUT

DIAG

GND

GND

Ior

Igr

Qlgr

Current source

Current sink

LED

LED

Load

$R_L$

K1

1

2

3

4

5

6

9

10

11

FIG 3



Intelligent Power Semiconductor 1

Power Switch 6

Logic Element 5

Current Source 3

Current sink 4

Input

Igr

Ior

OUT

K1

GND

DIAG

2

Vbb

$R_L$, Load

Display element 11

LED 9

LED 10